



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

✓.0

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/833,590	04/07/97	MEYER D	940553.ORI

LM01/1216

FREDERICK W NIEBUHR
LARKIN HOFFMAN DALY & LINDGREN LTD
1500 NORWEST FINANCIAL CENTER
7900 XERXES AVENUE SOUTH
BLOOMINGTON MN 55431

EXAMINER

SNIEZEK, A

ART UNIT

PAPER NUMBER

2753

S

DATE MAILED: 12/16/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/833,590

Applicant(s)
Meyer et al.

Examiner
ANDREW L. SNIEZEK

Group Art Unit
2753



☒ Responsive to communication(s) filed on Jul 16, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-31 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 8-12, 18-21, and 28-31 is/are allowed.

☒ Claim(s) 1-6, 13-16, 22, 23, and 25-27 is/are rejected.

☒ Claim(s) 7, 17, and 24 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2753

1. The information disclosure statement filed 7/16/97 is acknowledged.
2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "said control means" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claims 10-12 inherit this language.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6, 22, 23 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al.

See figure 13 along with corresponding disclosure which teaches a piezoelectric material as being a part of the slider and which exhibits a different thermal expansion coefficient than the balance of the slider which enables the position of a transducer to be adjusted in relation to the medium. As broadly as set forth the limitations of claims 1-6, 22, 23 and 25-27 are satisfied by Chang et al.

6. Claims 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Harada et al.

Art Unit: 2753

Harada et al. teaches the use of a sensor (15) that measures the spacing between the slider/head and the medium. This information is then used to apply a voltage through a piezoelectric element which inherently is heated and changes a thermal expansion coefficient, to vary the position of the head/slider in relation to the medium. As broadly as set forth the limitations of claims 13 and 15 are satisfied. The limitations of claim 14 "acoustic output" is satisfied by column 8 lines 6-7. The piezoelectric element inherently as a resistance therefor satisfying the limitations of claim 16.

7. Claims 8, 18-21 and 28-31 are allowed.

8. Claims 9-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. Claims 7, 17 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The claimed arrangement that senses the temperature of the slider, which sensing is used to control the position of the transducer with respect to the medium is neither taught by nor an obvious variation of the art of record.

Art Unit: 2753

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamaki, Murata et al., Takeuchi and Kasahara are cited teaching arrangements related to the claimed invention.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone and VoiceMail number is (703) 308-1602. If a plurality of attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Psitos, can be reached on (703) 308-1598.

The appropriate fax phone number for the organization (Group 2750) where this application or proceeding is assigned is (703) 308-9051.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Andrew L. Sniezek
Andrew L. Sniezek
Primary Examiner
Art Unit 2753

A.L.S.
December 14, 1998